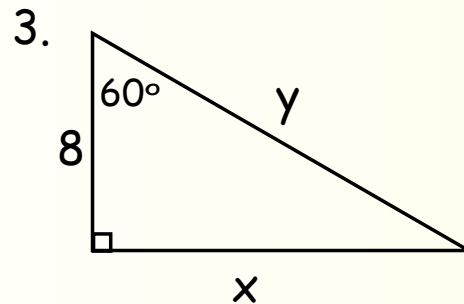
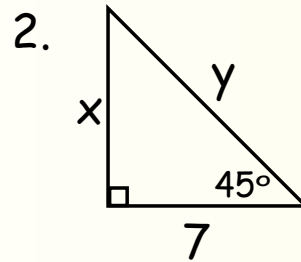
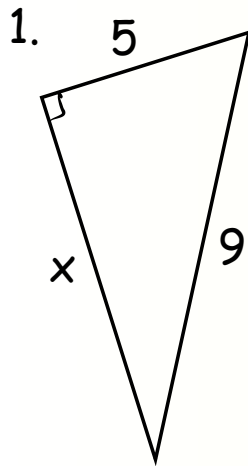


Precalc Warm Up # 4-5

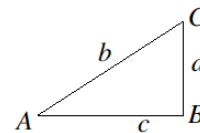
Find x and y exactly:

HW Questions:

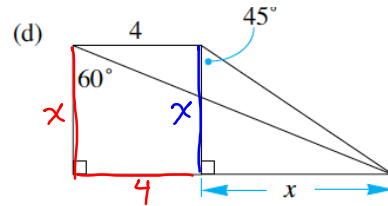
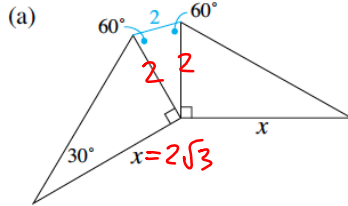
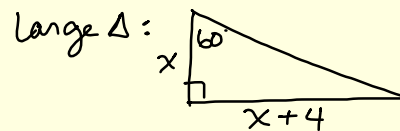
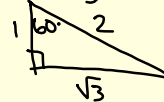
EXERCISES 9.1

p. 277

1. The parts of this question refer to the triangle shown. Complete the blank spaces in this table, giving lengths correct to three significant figures and angles correct to the nearest degree.



	a cm	b cm	c cm	A	B	C
1.			1.6		90°	23°
2.		98.3			90°	34°
5.	2.3				90°	33°
17.	29.0		2.0		90°	
18.	34.5	88.2			90°	

Find the exact value of x in each of the followingSm. Δ 45-45-90legs are \cong Rectangle \rightarrow opp. sides \cong Using Special Δ 

$$\frac{x}{1} = \frac{x+4}{\sqrt{3}}$$

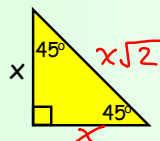
You can find missing sides in a RIGHT triangle by using Pythagorean Theorem when given **two** of the three sides.

$$a^2 + b^2 = c^2$$

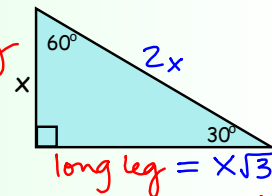


where a and b are the two legs and c is the hypotenuse

If you have a SPECIAL triangle (45° - 45° - 90° or 30° - 60° - 90°), you only need **one** side to find the other two.



Isosceles Rt Δ
legs \cong
hyp = leg $(\sqrt{2})$

Sh.
leg

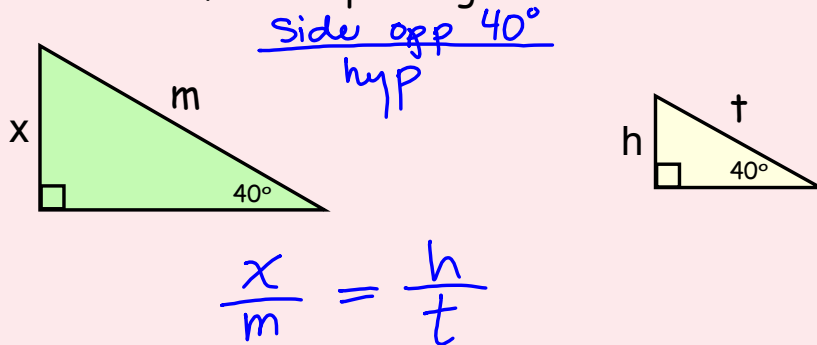
long leg = $x\sqrt{3}$
long leg = sh. leg $(\sqrt{3})$
hyp = $2(\text{sh. leg})$

$$\frac{6}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = 2\sqrt{3} \rightarrow \begin{array}{c} ? 4\sqrt{3} \\ \nearrow \\ \text{right triangle with } 30^\circ \text{ angle} \\ \searrow \\ 6 \end{array}$$

For right triangles that are not special and you don't know 2 sides,

use TRIGONOMETRY.

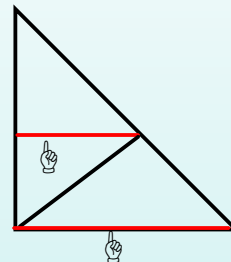
Recall: Two triangles are [~]SIMILAR when they have 2 congruent angles, and in similar triangles, the ratio of corresponding sides is the same.



HW: SL book p. 277

2 (skip a&d), 3, 4

On 2e assume these lines are parallel:



on 4a assume right triangle

on 4b assume dotted lines are parallel